



Egyptian Herbal Monograph

Volume 3

Medicinal Plants used in Egypt

Egyptian Drug Authority (EDA)

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Arctostaphylos uva-ursi L.

عنب الدب

1. Names & Synonyms (1)

Arctostaphylos uva-ursi L.

Family: Ericaceae.

Syns.: *Arbutus uva-ursi* L., *Arctostaphylos media* Greene, *Arbutus officinalis* Wimm., *Arbutus procumbens* Patzke, *Mairania uva-ursi* Desv., *Uva-ursi buxifolia* S.F. Gray, *Uva-ursi procumbens* Moench.

Arabic: Enab eddib عنب الدب.

English name: Bearberry, Uva ursi.

2. Parts used for medicinal purpose

Dried leaves (1-4).

3. Major chemical constituents

-Hydroquinone derivatives: Arbutin and methyl-arbutin (glycosides); galloyl arbutin, and hydroquinone (2, 5).

-Flavonoids: Myricetin, quercetin and their glycosides including hyperin, isoquercitrin, myricitrin and quercitrin; hyperoside; kaempferol (2,5,6).

-Polyphenols: Gallotannins, corilagin, catechin, anthocyanidin derivatives including cyanidin and delphinidin (2).

-Phenolic acids: Gallic, *p*-coumaric and syringic, salicylic acid, *p*-hydroxybenzoic, ferulic, caffeic and lithospermic acids (dimeric caffeic acid) (2).

-Terpenoids: α -Amyrin, α -amyrin acetate, β -amyrin, lupeol, uvaol, ursolic acid, and a mixture of mono- and di-ketonic α -amyrin derivatives (1,2,5).

4. Medicinal Uses (Indications)

Symptomatic treatment of mild recurrent lower urinary tract infections such as burning sensation during urination and/or frequent urination in women, after serious conditions have been excluded by a medical doctor (1-3).

5. Herbal preparations correlated to medicinal use (2)

1. Comminuted herbal substances as herbal tea for oral use.

1.5-4 g (4) of the comminuted herbal substance in 150 ml of boiling water as a herbal infusion or a macerate (1,4).

2. Powdered herbal substance.

3. **Dry extract, extraction solvent ethanol 60% V/V**, containing 23.5-29.3% of hydroquinone derivatives calculated as anhydrous arbutin (spectrophotometry).

4. **Dry extract, extraction solvent water**, containing 20-28% of hydroquinone derivatives calculated as anhydrous arbutin (spectrophotometry).

5. **Liquid extract**, extraction solvent ethanol 25% V/V.

Herbal preparations (2-5) are in pharmaceutical dosage forms. The pharmaceutical form should be described by the pharmacopoeia full standard term.

6. Posology and method of administration correlated to medicinal use (2)

Adult and elderly females

Preparation 1

2 to 4 times daily. Maximum daily dose: 8 g.

The macerate should be used immediately after preparation.

Preparation 2: Single dose: 700 – 1050 mg, twice daily. Maximum daily dose: 1.75 g.

Preparation 3, 4

Single dose: the dose corresponding to 100–210 mg of hydroquinone derivatives calculated as anhydrous arbutin, 2–4 times daily.

Daily dose: the dose corresponding to 200–840 mg of hydroquinone derivatives calculated as anhydrous arbutin (3).

Preparation 5: Single dose: 1.5–4 ml, up to 3 times daily. Maximum daily dose: 8 ml.

Duration of use:

- Not to be used for more than one week.
- If the symptoms persist for more than 4 days during the use of the medicinal product, a doctor or a pharmacist should be consulted.

Method of administration: Oral use (1-3).



7. Contraindications

- Hypersensitivity to active substances and to other plants of the same family.
- Kidney disorders (2).
- During pregnancy or lactation (1,3).
- Children under the age of 12 years (1,4), as hepatotoxicity may occur (4).

8. Special warnings and precautions for use

- If the symptoms worsen or if complaints such as fever, dysuria, spasms, or blood in urine occur during the use of the medicinal product, a doctor or a pharmacist should be consulted (2,3).
- It should not be used for prolonged periods (1-4).
- It should be used cautiously by persons with electrolyte imbalance, acidic urine, constipation, iron deficiency, anemia, malnutrition due to high tannin level, and disorders involving gastrointestinal irritation (4).
- It should not be administered with medicines or foods that acidify the urine, such as acidic fruits or fruit juice and should be administered with plenty of fluids (1,3).
- It may cause a greenish-brown coloration of the urine (1,2) that darkens on exposure to air due to the oxidation of hydroquinone (1).
- The use in children and adolescents under 18 years of age is not recommended without medical advice (2).
- The use in men is not recommended without medical supervision (2).

9. Interactions with other medicinal products and other forms of interaction (4)

- Concurrent use with diuretics can lead to electrolyte loss, primarily hypokalemia.
- Uva ursi may increase the effect of NSAIDs.
- Urine acidifiers may inactivate Uva ursi; concurrent use should be avoided.

10. Fertility, pregnancy and lactation

- The use during pregnancy and lactation should be avoided (1,4).
- No fertility data available (2).

11. Effects on ability to drive and use machines (2)

No studies on the effect on the ability to drive and use machines have been performed.



12. Undesirable effects (2)

- If adverse reactions occur, a doctor or a pharmacist should be consulted.
- Nausea, vomiting and stomachache.

13. Overdose (4)

Hepatotoxicity, cyanosis, tinnitus, vomiting, seizures, cardiovascular collapse, delirium, shortness of breath and feeling of suffocation.

14. Relevant biological activities

Not required as per Egyptian guidelines for registration of herbal medicines.

15. Additional Information

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16. Date of compilation/last revision

21/06/2022.

Referances

1	WHO monographs on selected medicinal plants (2002). Monographs on selected medicinal plants, 2 , 342-351.
2	Committee on Herbal Medicinal Products (HMPC) (2018). European Union Herbal monograph on <i>Arctostaphylos uva-ursi</i> (L.) Spreng., folium. EMA/HMPC/750269/2016. Committee on Herbal Medicinal Products (HMPC).
3	Natural Health Product - Bearberry - <i>Arctostaphylos uva-ursi</i> L. (2019). Health Canada, http://webprod.hc-sc.gc.ca/nhpiddipsn/atReq.do?atid=arctostaphylos.uva.ursi&lang=eng
4	Skidmore-Roth, L. (2010). Mosby's Handbook of Herbs and Natural Supplements. St. Louis: Mosby. ISBN: 978-0-323-05741-7.
5	Barnes, J., Anderson, L. A. and Phillipson, J. D. (2007). Herbal Medicines, 3 rd edition. Published by the Pharmaceutical Press. ISBN 978 0 85369 623 0.
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